OSEMA Newsletter

Lewis Research Center

Issue 1 January - March 1999

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CALENDAR OF EVENTS

Date: March 17, 1999
Time: 9 a.m. - 10 a.m.
Description: PRACA - Problem Reporting and Corrective Action - Quality Assurance Office - Forum - Ad. Bldg. Auditorium

Date: April 24, 1999
Time: 11 a.m. - 5 p.m.
Description: Earth Day at the Cleveland Metro Parks Zoo

Office of Safety, Environmental, and Mission Assurance

I welcome you to the first issue of the OSEMA Newsletter. It is our organization's hope that this quarterly newsletter will provide the reader with an overview of the support being provided by our Directorate to the Lewis community. We want the articles to be informative and useful, and request your comments and suggestions.

Although OSEMA is a small Directorate, we provide a host of services to support Aerospace programs/projects safety, environmental, security, and mission assurance requirements and services to ensure the Center is a safe and secure workplace for all employees and visitors.

Mr. Daniel S. Goldin, NASA's Administrator, has designated safety and health as NASA's highest core value. The Agency Safety Initiative's goal is to make NASA the Nation's leader in the safety and occupational health of its workforce and in the safety of the products and services we provide. Mr. Don Campbell stated in his *Director's Corner* column in the January issue of the *Lewis News* that the safety of NASA's programs/projects and the well being of each employee are everyone's responsibility.

Mr. Campbell asked each employee to "make safety a part of each day's agenda, and to take precautions and positive action to resolve potential safety problems." Although OSEMA is responsible for leading our safety program, we cannot accomplish the initiative's goal without your help.

Part of the way you can help is to become aware and follow safe and healthy practices both on the job and at home. Sometimes we take safety for granted, or look to others to ensure we have a safe workplace. It is often only after a close call or an accident that our awareness is heightened. We meant to wear our seat belt or check the batteries in the fire detector, or slow down in a construction area, but were too busy or running late. We need to slowdown and take time for ourselves and resolve to make the safety of ourselves and others of paramount importance.

OSEMA recently held a Safety Stand Down Day at Lewis and plans to hold other informative events throughout the year to heighten safety awareness. I urge you attend these sessions and learn the ways to avoid accidents, and if an accident should occur, how to respond. I assure you that your time will be well spent, and you will be a major part of making Lewis a safe and healthy workplace.

PROJECT ASSURANCE OFFICE

The NASA Electronic Parts and Packaging Meeting was held on December 17, 1998, at Lewis. A dialogue with 31 Lab personnel explained the goals of the Program, which are to assure reliability of available new technology, and evaluate and enable advanced technology. The purpose of the dialogue was to provide insight into current and anticipated Program content, determine other areas of interest to Code R, reshape the program as appropriate, and expand Code R interest and advocacy. The Agenda covered electronic packaging, electronic parts, and radiation characterization. Several additional specific Lewis/Code R needs were identified, including; low temperature electronics, high temperature electronics, sensors, silicon carbide devices, power electronic devices, communication devices, high power silicon carbide transistors, and high temperature optical components for aeronautics use. Tom Gindorf, the NASA Program Manager, expressed his thanks for the excellent support Lewis has provided to this risk mitigation program. It should continue to be very useful to several of our programs. Please contact the Project Assurance Office for more information.

An investigation was conducted on the CM-2 pressure integrity test failure. The hardware was disassembled and a presentation was made to the project outlining observations and modified assembly procedures to address suspected causes of the seal breach. The neoprene V-band O-Ring gaskets were well within their specified shelf life (i.e., 15 years). The new/replacement 50 Durometer gaskets were all harder than specified, and many had kinks due to the way they were stored. The corrective action was to follow guidelines in Aerospace Recommended Practice, ARP 5316, for storing elastomeric materials.

Information regarding the types of Attitude Control and Energy Storage Experiment tests needed to examine the small amount of debris collected from the U.S. Flywheel test from both Stork-Herron Laboratories and White Sands Testing Facility (WSTF) was collected. Both organizations suggested that Fourier Transform InfraRed (FTIR) analysis and Auger Surface Analysis would most likely determine the nature of the debris from such a small sample. A search is being made at LeRC, USFC, and KSC to find a contractor that has the in-house capability to perform this analysis.

A set of rework instructions for removing the Nye grease from the switches used on CID due to its non-compatibility with extreme cold temperatures has been prepared. Of the 23 available switches, 15 will be reworked to remove the grease. Out of this group, 9 will be used as flight hardware. One of the 15 will be sent to MSFC for toxicity testing.

QUALITY ASSURANCE OFFICE

The Quality Management Office promotes and supports the quality needs of the Center and in particular provides support to the Project Assurance Office. Among its responsibilities are managing the headquarters sponsored QASAR program. The QASAR program was establish several years ago by Col. Gregory, AA Safety and Mission Assurance, to provide four classes of recognition in the Quality and Safety arena with a significant “BEST of the BEST” award at year's end. Our Administrator has recently chosen to elevate this program providing more significant recognition for Safety in particular as part of his effort to increases safety awareness.

In future articles we will fully explore the different classes of awards. For now we would like to close by quoting Col. Gregory's forward to the QASAR Award Programs description bulletin:

“Working on the cutting edge of aeronautics and space research and technology, working in the harsh environment of space, and doing the things that have never been done --NASA's mission is inherently risky. Safety and quality must be all encompassing drivers, understood and applied in every step in it process and at every level of the organizational structure, from the individual employee to the top manager. There is simply no quality or safety compromise in human flight or high-cost spacecraft.

In this era of increasing workloads and decreasing budgets, our success hinges on the ability to provide top-quality products and services, as well as management-centered safety processes in the most economical way possible. Achieving quality and safety is not simple. It takes top management commitment, the right information and tools, along with dedication, discipline, and the willingness to examine and analyze work processes. It takes commitment to follow through and implement improvements.

The QASAR Award recognizes those individuals who have stepped up to the challenge and displayed exemplary performance in contributing to safety and reliably in products, services, and processes for NASA. I encourage you to review these criteria and participate in this award program to recognize exemplary performance in support of NASA.”

Frederick D. Gregory
Associate Administrator for Safety and Mission Assurance

Make Winter Safe

Winter is upon us once again. So far it has been a little more characteristic of Cleveland winters of old. Therefore, it is critical that we employ safe practices to get us through it and into spring! To lessen the dangers that often accompany cold and snowy weather, please review the following helpful hints:

Black Ice

Black ice is a treacherous hazard that is prevalent this time of year! Black ice is a thin layer of ice found mostly in shadow areas of roads and walking surfaces. Because it lurks in the shadows it is often not recognized until it is too late. Black ice is created when the temperature fluctuates near the freezing mark. Surfaces exposed to sunlight tend to stay dry while areas in the shadows form a thin layer of ice that is almost invisible to the naked eye. When the unsuspecting venture into its path slips or skids may result! While black ice is commonly found during early morning hours, it has been known to exist all day in shaded areas.

Employees should be especially cautious when getting in and out of vehicles or walking through paved parking lots that have dark surfaces such as asphalt or blacktop.

Winter Driving

Allow extra time - roads may be slippery or have slippery spots such as black ice as discussed above.

Always buckle up - safety belts have been proven to prevent serious injury and save lives no matter the season.

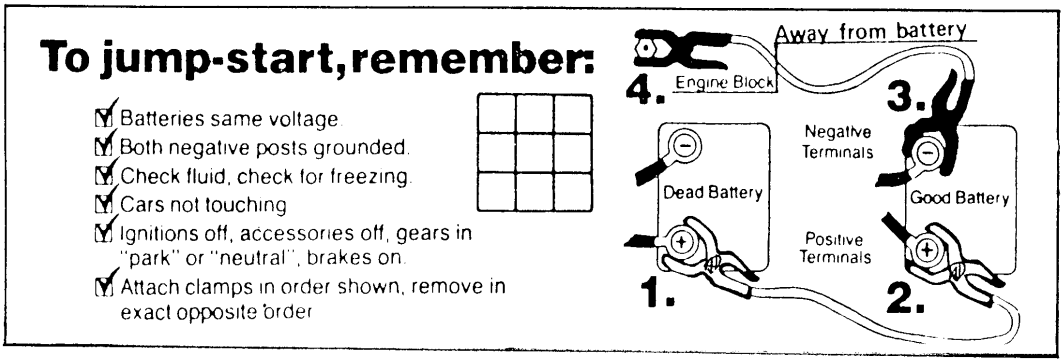
Watch out for pedestrians - your stopping power is greatly reduced during on slippery surfaces and their efforts to cover up from the elements might cause them to be less mindful of approaching traffic.

If you skid - be mindful of the type braking system and use the appropriate braking strategy for your vehicle's steering system. Front wheel drive vehicles should be turned in the direction you want the car to travel, while rear wheel vehicles should be turned into the direction of the skid to regain control of the vehicle!

Winter Walking	Winter Heating	Snow Removal
Walk defensively - Take short steps **Watch for traffic** - Cars take longer to stop in snow and ice	**Smoke Detectors** - Ensure smoke and fire detectors are in proper operating condition and have fresh batteries **Portable Heaters** - Check for frayed cords. - Keep heaters away from curtains and furniture. - Have an automatic shutoff on case of overturning. **Fireplaces** - Keep your damper fully open when in use. - Always use a screen and grate. - Never leave fires unattended.	**Shoveling** - Use a proper shovel. - Lift with your legs. - Do heavy work before eating. - Do not smoke or drink while working. **Snow Blower** - Have a firm footing when starting it. - Aim snow carefully. - Remove obstacles from your path. - Do not unclog chute when the motor is running. - Do not operate over gravel or loose stones. - After clearing the snow, spread sand and salt to prevent slips.

When your car battery dies!

Cold weather is the cause of dead batteries. If you need to jump-start your battery here is the safe way to do it.



LEWIS SAFTEY OFFICE

Sling Inspections and Testing Alert!

Both NASA and OSHA have safety requirements for slings. It is mandatory that slings are inspected annually and load tested every 4th year. Call Henry has been contracted to perform the load testing service for all slings located at the Lewis Research Center. To ensure this service is conducted in an expeditious manner, your assistance is needed. There are approximately 1600 slings at the Center. A complete inventory of these slings does not exist. Therefore, applicable Building Managers, Facility Managers and Supervisors are requested to prepare an inventory of all slings located in their building, facility, or area of responsibility, and forward this inventory listing to either Michael Micham, Mail Stop 21-13, or Rich Olinek, Mail Stop 107-1.

Sample Inventory Format

Sling #	Next load test due date:	Location	Contact Person	Phone #
xxxx-xxxx-xxxx	(xx/xx/xx)	Bldg./Area		

The "sling #", (format: BLDG - AREA - ITEM), and "next load test due date" (NLT or NPT) can be found on each sling, either on a tag, or as is the case on most web slings, on the sling itself. The "location" column identifies the building and area where the sling is normally stored.

Once the inventory has been completed, Call Henry will provide a minimum of 30 days notice before the date that testing is scheduled for a particular group of slings. The applicable Building Manager, Facility Manager or Supervisor should either ensure delivery of the sling to Call Henry, or notify Call Henry of the specific central and easily accessible location of the sling(s) in question.

Your cooperation and assistance is critical to this process in order to ensure the continued safety of our lifting devices, and remain in compliance with both NASA and OSHA regulations!

Slings are required to be inspected for damage or defects each day before use. They are also required to be inspected annually by a competent person, and logs of these annual inspections are required to be kept. Applicable Building Managers, Facility Managers and Supervisors are requested to identify the designated "Competent Person" who has responsibility for conducting such inspections. This person will be required to attend the next Crane Safety class. The first training class this year is scheduled for June 29 - 30, 1999, 8:00 - 4:00 p.m. Each individual user shall be responsible for inspecting slings prior to each use. Please note that any purchase of a crane or sling must be approved by Michael Micham of the Facilities and Test Engineering Division.

ENVIRONMENTAL MANAGEMENT OFFICE

A Little Knowledge is a Dangerous Thing

A product label on a container is a very useful source of information on the hazards of the chemicals that you work with. The label gives you a snapshot of the hazards of the material. As good as this information is, it only gives you a brief highlight for the chemical. This little knowledge, though better than none, can be dangerous to you if that is all you know about the chemical. A better source of information is the product's Material Safety Data Sheet (MSDS) which has detailed information on product hazards and how to protect yourself.

One of the jobs of the Chemical Management Team (CMT) is to provide MSDS's to chemical users. One of the tasks of the user is to read the MSDS and understand the information.

Each work area that users chemicals has an MSDS binder that contains an MSDS for each chemical in the area. Now is the time for you to find the binder in your work area. It is a large three ring binder with bright yellow inserts for the titles. Dust if off, crack open the binder, review the MSDS's for the chemicals that your use. If the MSDS that you are looking for is not there, call Vanessa Smith at 3-8824. She will make sure that you have the MSDS in your workarea. You can help use keep the information current.

What kind of information is available to you on an MSDS? The information required to be on an MSDS is very specific as defined by OSHA. The name of the chemical and manufacturer is usually found in the first section. The name of the chemical on the MSDS and the name on the container label must be the same. This will ensure that you have the correct information for the chemical that you are using.

The ingredients must be listed if they are 1% or more of the formulation and carcinogens must be listed if they are 0.1% or more. The chemical characteristics must be disclosed. This will let you know the state of the material, whether the material is volatile or not, and if there is a distinctive odor to the material.

The physical and health hazards must be identified. All information that the manufacturer has on the hazards of the material must be communicated to the user. This information is very important to know especially the signs and symptoms of overexposure. There will also be a section on the personal protective apparel and equipment that you need to use to protect yourself from exposure to the chemical.

The CMT Hazard Communication training class, offered at least 6 times a year, provides instruction on how to read a MSDS and what to do with the information is presented. You may also contact the CMT to schedule a hazard specific class for your work area to address specific concerns. Material Safety Data Sheets and Hazard Communication Training will give you the knowledge to work more safety with the chemicals in your area. Take advantage of them to make your part of Lewis a safer place.

Laptops: A Target for Theft

Laptop computers have become a staple of our daily business, as desktops were several short years ago. We find that these handy pieces of equipment make it very easy to carry our work with us, regardless where we go. What many of us are guilty of is forgetting what we have stored in the computer, or that convenient floppy disk that is tucked in the side pocket. We carry these laptops home, to meetings, and when we are on travel. While on travel have you set the laptop down to attend to other business, like getting a cup of coffee? These moments of inattention are likely targets for thieves. Remember that thieves can come dressed in suits and ties.

Insurance providers have reported that more than $1 billion worth of claims for stolen laptops were filed in 1997. This was an increase of 28 percent over the previous year.

To minimize the risk of having your laptop stolen or your business information slip away, experts recommend the following tips:

When you first receive the laptop, etch identifying marks (personalized numbers, symbols, etc.) in several places on the machines and components.

If you carry your laptop to a meeting, don't leave it in the meeting room while you go to lunch if the room is unattended.

If possible, have only your applications on your laptop. Files should be stored on floppy disks.

Floppy disks should **not** be placed in the same carrying bag with the laptop. Keep the disks in a separate location.

While traveling through an airport keep the laptop in sight at all times, preferably using a shoulder strap. Most difficulty occurs when you are processing through the security screening area.

Finally, report laptop thefts immediately. The longer you wait the harder it becomes to investigate the theft.